



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Bin Liu

Serial No.: 10/532,649

Filed: April 25, 2005

For: CATIONIC WATER-SOLUBLE
CONJUGATED POLYMERS AND THEIR
PRECURSORS

Confirmation No.: Unknown

Examiner: Unknown

Group Art Unit: Unknown

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(R5/1145 PK/rs)

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Person making Deposit: Steve Wong

INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In compliance with the duty to disclose information material to patentability pursuant to 37 C.F.R. § 1.56, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on attached Form PTO/SB/08 be considered by the Examiner and made of record. Pursuant to M.P.E.P. 609 III A(2), copies of U.S. patents are not being provided. Copies of foreign patent documents and non-patent literature are enclosed pursuant to 37 C.F.R. § 1.98(a)(2).

In accordance with 37 C.F.R. § 1.97(g) and (h), filing of this Information Disclosure Statement is not to be construed as a representation that a search has been made or an admission

that the information cited herein is, or is considered to be, material to patentability as defined in 37 C.F.R. § 1.56(b). Further, no representation is made by Applicant herein that no other possible material information as defined in 37 C.F.R. § 1.56 (b) exists.

U.S. Patent Documents

<u>U.S. Patent No.</u>	<u>Publication Date</u>	<u>Patentee</u>
US - 3,287,321	11/22/1966	Temin
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Foreign Patent Documents

<u>Document No.</u>	<u>Publication Date</u>	<u>Patentee</u>
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Other Documents

BALANDA, Peter B., et al., Water-Soluble and Blue Luminescent Cationic Polyelectrolytes Based on Poly (p-phenylene), *Macromolecules*, Vol. 32, No. 12, pp. 3970-3978, 1999.

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CHILD, Andrew D., et al., Water-Soluble Rigid-Rod Polyelectrolytes: A New Self-Doped, Electroactive Sufonatoalkoxy-Substituted Poly(p-phenylene), *Macromolecules*, Vol. 27, No. 7, pp. 1975-1977, 1994.

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KIM, Young H., et al., Water-Soluble Hyperbranched Polyphenylene: "A Unimolecular Micelle"?, *J. Am. Chem. Soc.*, Vol. 112, pp. 4592-4593, 1990.

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MIYAURA, Norio, et al., Palladium-Catalyzed Cross-Coupling Reactions of Organoboron Compounds, *Chem Rev.*, Vol. 95, No. 7, pp. 2457-2483, 1995.

PATIL, A.O., et al., Water-Soluble Conducting Polymers, *J. Am. Chem Soc.*, Vol. 109, pp. 1858-1859, 1987.

PICKUP, Peter G., Poly-(3-Methylpyrrole-4-Carboxylic Acid): an Electronically Conducting Ion-Exchange Polymer, *J. Electroanal. Chem.*, Vol. 225, pp. 273-280, 1987.

RAU, I.U., et al., Towards rigid-rod polyelectrolytes via well-defined precursor poly(para-phenylene)s substituted by 6-iodohexyl side chains, *Acta Polymer*, Vol. 45, pp. 3-13, 1994.

RULKENS, Rudy, et al., Rigid-rod polyelectrolytes: synthesis of sulfonated poly(p-phenylene)s, *Macromol. Rapid Commun.*, Vol. 15, pp. 669-676, 1994.

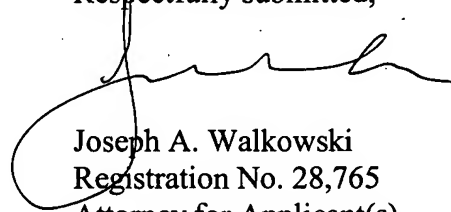
SHI, Songqing, et al., Synthesis and Characterization of a Water-Soluble Poly(p-phenylenevinylene) Derivative, *Macromolecules*, Vol. 23, No. 8, pp. 2119-2124, 1990.

WALLOW, Thomas I., et al., Communications to the Editor, In Aqua Synthesis of Water-Soluble Poly(p-phenylene) Derivatives, *J. Am. Chem Soc.*, Vol. 113, pp. 7411-7412, 1991.

Applicant offers to supply any explanation or discussion of the documents which the Examiner feels is necessary or desirable and which is requested.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits, and therefore no fee is due.

Respectfully submitted,



Joseph A. Walkowski
Registration No. 28,765
Attorney for Applicant(s)
TRASKBRITT
P.O. Box 2550
Salt Lake City, Utah 84110-2550
Telephone: 801-532-1922

Date: October 12, 2005
JAW/ps:slm

Enclosures: Form PTO/SB/08
Copy of non-U.S. Patent documents cited

Document in ProLaw

Approved for use through 10/31/2002. OMB 0651-0031

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Sheet	1	of	2
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Complete if Known

Application Number	10/532,649
Filing Date	April 25, 2005
First Named Inventor	Bin Liu
Group Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	3026-6977US (R5/1145 PK/rs)

U.S. PATENT DOCUMENTS

[illegible]

FOREIGN PATENT DOCUMENTS

Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	T ⁶
		Country Code ³ - Number ⁴ - Kind Code ⁵ (if known)				
		DE 198 46 767 A1	04/20/2000	Aventis Research		X
		WO 01/62822 A1	08/30/2001	Cambridge Display Tech.		
		WO 01/77203 A2	10/18/2001	Uniax Corporation		
		WO 02/066537 A1	08/29/2002	Cambridge Display Tech.		
		WO 02/26859 A1	04/04/2002	Cambridge Display Tech.		
		WO 03/035713 A1	05/01/2003	Cambridge Display Tech.		

Examiner Signature		Date Considered	
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Sheet 2 of 2

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Group Art Unit	Unknown
Examiner Name	Unknown
Attorney Docket Number	3026-69771US (R5/1145 PK/rs)

NON PATENT LITERATURE DOCUMENTS

Examiner Initials *	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²
		BALANDA, Peter B., et al., Water-Soluble and Blue Luminescent Cationic Polyelectrolytes Based on Poly(p-phenylene), Macromolecules, Vol. 32, No. 12, pp. 3970-3978, 1999.	
		BRODOWSKI, Gisela, et al., Communications to the Editor, Synthesis and Intrinsic Viscosity in Salt-Free Solution of a Stiff-Chain Cationic Poly(p-phenylene) Polyelectrolyte, Macromolecules, Vol. 29, No. 21, pp. 6962-6965, 1996.	
		CHILD, Andrew D., et al., Water-Soluble Rigid-Rod Polyelectrolytes: A New Self-Doped, Electroactive Sulfonatealkoxy-Substituted Poly(p-phenylene), Macromolecules, Vol. 27, No. 7, pp. 1975-1977, 1994.	
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		KIM, Young H., et al., Water-Soluble Hyperbranched Polyphenylene: "A Unimolecular Micelle"? J. Am. Chem. Soc., Vol. 112, pp. 4592-4593, 1990.	
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		MIYAURA, Norio, et al., Palladium-Catalyzed Cross-Coupling Reactions of Organoboron Compounds, Chem Rev., Vol. 95, No. 7, pp. 2457-2483, 1995.	
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		RAU, I.U., et al., Towards rigid-rod polyelectrolytes via well-defined precursor poly(para-phenylene)s substituted by 6-iodohexyl side chains, Acta Polymer, Vol. 45, pp. 3-13, 1994.	
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		SHI, Songqing, et al., Synthesis and Characterization of a Water-Soluble Poly(p-phenylenevinylene) Derivative, Macromolecules, Vol. 23, No. 8, pp. 2119-2124, 1990.	
		WALLOW, Thomas I., et al., Communications to the Editor, In Aqua Synthesis of Water-Soluble Poly(p-phenylene) Derivatives, J. Am. Chem Soc., Vol. 113, pp. 7411-7412, 1991.	
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